

II. REMARKS

The Office Action dated October 16, 2006, has been received and carefully noted. The amendments made herein and the following remarks are submitted as a full and complete response thereto.

Claims 1-5, 7, 8 and 10-16 are pending.

At this time, claims 1, 4, 7 and 8 are amended, and claim 5 is canceled. Support for the amendments can be found in the specification and claims as originally filed. For example, claim 1 is amended to further clarify the scope of the claim. Support for the amendment to claim 1 is found on page 5, lines 1-2 of the specification. Further, claim 4 is amended to provide antecedent support and further clarify the scope of the invention. Claim 4 is also amended to incorporate the subject matter of dependent claim 5. Claims 7 and 8 are amended to clarify the scope of the presently claimed invention, and claim 8 is amended to remove the asserted improper multiple dependency. Therefore, Applicants believe that no new matter is added. Applicants respectfully request reconsideration and withdrawal of all rejections.

Entry of this Amendment is proper under 37 C.F.R. § 1.116 since this Amendment: (a) places the application in condition for allowance for reasons discussed herein; (b) does not raise any new issues regarding further search and/or consideration since the Amendment amplifies issues previously discussed throughout prosecution; (c) does not present any additional claims without canceling a corresponding number of finally-rejected claims, and (d) places the application in better form for appeal, should an appeal be necessary. Entry of this Amendment is thus respectfully requested.

Claims 4 and 5 have been rejected under 35 U.S.C. § 112, second paragraph, for the asserted indefiniteness. Applicants traverse the rejection.

Applicants submit that claim 4 has been amended to provide antecedent basis and further clarify the scope of the presently claimed invention. Specifically, Applicants have amended claim 4 to recite a “step consisting of spraying a pressurized liquid...” (emphasis added). Further, Applicants have amended claim 4 to recite that the spraying occurs at a pressure of between 10 and 25 bar. As such, Applicants respectfully request withdrawal and reconsideration of the rejection of claims 4 and 5 under 35 U.S.C. § 112, second paragraph.

Claims 1-5 and 7 have been rejected under 35 U.S.C. § 103(a) over Bode et al. (DE 19606433, English abstract only) in view of Rhoades (U.S. Patent Publication No. 2001/0018061) and Hirota (U.S. Patent No. 5,894,963). Applicants traverse the rejection.

Applicants submit that the presently claimed invention is directed to a “method of treatment of an area of skin of a human subject transepidermally, comprising the steps of: abrading a portion of the stratum corneum, followed by spraying a pressurized liquid onto the area to be treated by means of a spray nozzle, and sucking the sprayed liquid by means of a conduit in communication with a vacuum pump” (present claim 1) (emphasis added).

Applicants submit that the step of abrasion of the stratum corneum allows any active agents which may be contained in the sprayed liquid to penetrate deeply into the epidermis (specification, page 8, lines 3 to 7). Applicants submit that the action of sucking the sprayed liquid creates a vacuum on the surface of the skin (specification,

page 8, lines 18 to 21), which can create a depression on the surface of the skin, causing hyperemia (dilation of the blood vessels on the surface of the skin) and creating an advantage of facilitating the penetration of the sprayed liquid into the epidermis.

In contrast, Applicants submit that Bode et al. merely discloses a device for “applying a treatment product... to the required skin area via an application jet” (Bode et al., abstract). Applicants submit that Bode et al. does not teach or suggest the steps of “abrading a portion of the stratum corneum” or “sucking the sprayed liquid” (claim 1).

Applicants submit that Rhoades does not satisfy the deficiencies of Bode et al. Applicants submit that Rhoades merely discloses a “composition... including a case and a plurality of abrasive particles” (Rhoades, paragraph [0012]). Applicants submit that Rhoades does not teach or suggest the presently claimed invention, specifically a method comprising abrading the stratum corneum, followed by the steps of spraying a pressurized liquid onto the area to be treated and sucking the sprayed liquid by means of a conduit in communication with a vacuum pump. Applicants submit that Rhoades merely discloses the use of a composition to exfoliate the surface of the skin, followed by optional rinsing or cleansing of the skin. Applicants submit that there is no teaching or suggestion to follow up the exfoliation step with the further steps of spraying a pressurized liquid or sucking the sprayed liquid.

Applicants submit that Hirota does not satisfy the deficiencies of Bode et al. or Rhoades. In contrast, Applicants submit that Hirota merely discloses a “pump mechanism for ejecting liquid which can eject a fixed amount of a given liquid, such as a liquid medicine, at a time in the form of a spray or jet” (Hirota., col. 1, lines 5-7). Hirota discloses that the pump mechanism can be used in “[c]ontainers for holding a liquid

medicine for nose or throat treatment" (Hirota, col. 1, lines 8-11).

Applicants respectfully disagree with the Examiner's assertion that Hirota reads on the presently claimed invention, because a "tube, wherein a liquid is suctioned, reads on an annular suction chamber" (Office Action, page 6). Rather, Applicants submit that the presently claimed invention is directed to a "method for treatment of an area of skin of a human subject transepidermally" and that Hirota does not disclose the suction of "the sprayed liquid by means of a conduit in communication with a vacuum pump" (claim 1). In contrast to the presently claimed invention, Applicants submit that Hirota discloses a pump mechanism in which the negative pressure is produced inside the mechanism, to draw the liquid from the container to the metering chamber. In other words, Applicants submit that the liquid is sucked into the metering chamber to be eventually sprayed out, and the pump is not used for "sucking the sprayed liquid from the skin."

As Bode et al., Rhoades, and Hirota fail to teach or suggest all of the elements of the presently claimed invention, Applicants respectfully request reconsideration and withdrawal of the rejection under 35 U.S.C. § 103(a).

Claim 8 has been rejected under 35 U.S.C. § 103(a) over Bode et al., in view of Rhoades and Hirota, and further in view of Laughlin (U.S. Patent Publication No. 2002/0000237) and/or Yu et al. (U.S. Patent No. 5,962, 526). Applicants traverse the rejection.

As discussed above, Applicants submit that Bode et al., Rhoades and Hirota do not teach or suggest the presently claimed invention, specifically present independent claim 1 and present dependent claims 2-4 and 7. As such, Applicants submit that Bode

et al., Rhoades and Hirota do not teach or suggest claim 8, which depends on independent claim 1. Applicants submit that Laughlin and Yu et al. do not satisfy the deficiencies of Bode et al., Rhoades and Hirota. Applicants submit that Laughlin merely discloses "systems for automatically coating the human body or selected parts thereof with predetermined fluids" (Laughlin, paragraph [0002]) and Yu et al. merely discloses the "topical treatment of disease conditions" (Yu et al., col. 1, lines 24-25).

In response to the Examiner's assertion that based on Weber et al. (U.S. Patent Publication No. 2002/0058952) and Meisner et al. (U.S. Patent Publication No. 2005/0037314), a "skilled artisan would have been motivated to incorporate the steps of filtering and recovery of the residual composition," Applicants have amended claim 1 to clarify the scope of the presently claimed invention and recite that the step of sucking the sprayed liquid from the skin occurs "by means of a conduit in communication with a vacuum pump" (present claim 1). Applicants submit that neither Weber et al. nor Meisner et al. teach or suggest the steps of abrasion of the stratum corneum, spraying of a liquid onto the area to be treated, and sucking of the sprayed liquid. For example, Applicants submit that Weber merely discloses "an apparatus for resurfacing or treating tissue (e.g., skin) using biocompatible materials that are blasted/propelled at the tissue with sufficient velocity to cause destruction, loosening, or unbinding of tissues to the desired depth upon impact" (Weber et al., paragraph [0034]). Further, Weber et al. discloses that the "propelled materials should be maintained in a solid form for maximal abrasive capability" (Weber et al., paragraph [0035]) (emphasis added). In contrast, Applicants submit that the method of the presently claimed invention comprises the steps of abrading a portion of the stratum corneum, followed by spraying a pressurized

liquid.

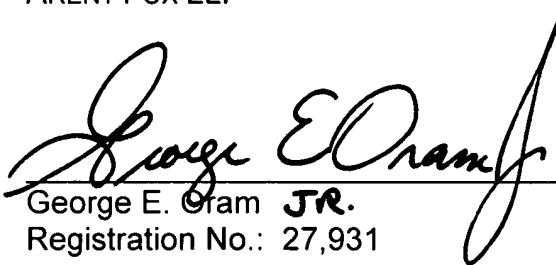
For at least the above reasons, Applicants respectfully request reconsideration and withdrawal of the rejection of claim 8 under 35 U.S.C. § 103(a) over Bode et al., in view of Rhoades and Hirota, and further in view of Laughlin and/or Yu et al.

III. CONCLUSION

Applicants respectfully submit that this application is in condition for allowance and such action is earnestly solicited. If the Examiner believes that anything further is desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact Applicants' undersigned representative at the telephone number listed below to schedule a personal or telephone interview to discuss any remaining issues.

In the event this response is not timely filed, the Applicants hereby petition for an appropriate extension of time. The fee for this extension, along with any other additional fees which may be required with respect to this response, may be charged to Deposit Account No. 01-2300, referencing Attorney Docket No. **021305-00201**.

Respectfully submitted,
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